Amendments to the Claims:

The below listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims

1. (Currently amended) A voltage-controlled oscillator circuit connected to supply and reference voltages for radio frequency operation, comprising:

at least one inductor;

at least one varactor connected in parallel with the at least one inductor;

a pair of p-channel MOS transistors connected across the at least one varactor, each p-channel transistor having source, drain, and gate terminals, wherein the drain terminal of the first of the pair of p-channel MOS transistors is connected to the gate terminal of the second of the pair of p-channel MOS transistors and the drain terminal of the second of the pair of MOS transistors ~~being~~ is connected to the gate terminal of the first of the pair of MOS transistors; and

biasing means for providing a biasing current to the voltage-controlled oscillator circuit and for substantially widening the tuning range thereof, the biasing means being configured according to ~~one of~~ a biasing n-channel MOS transistor connected to the supply voltage and ~~biasing~~ self-biasing p-channel MOS transistor connected to the reference voltage,

wherein the biasing means is connected to the pair of p-channel MOS transistors and the at least one inductor.

2. (Original) The voltage-controlled oscillator circuit of claim 1, wherein when the biasing means is configured according to the biasing n-channel MOS transistor connected to the supply voltage, the biasing n-channel MOS transistor having source, drain, and gate terminals, the drain terminal of the biasing n-channel MOS transistor is connected to the supply voltage.

3. (Original) The voltage-controlled oscillator circuit of claim 2, wherein the gate terminal of the biasing n-channel MOS transistor is connected to a biasing voltage.

4. (Original) The voltage-controlled oscillator circuit of claim 3, wherein the source terminal of the biasing n-channel MOS transistor is connected to the source terminals of the pair of p-channel MOS transistors.

5. (Original) The voltage-controlled oscillator circuit of claim 4, wherein the at least one inductor is configured according to a pair of first and second inductors connected in series and the connection therebetween is connected to the reference voltage.

6. (Original) The voltage-controlled oscillator circuit of claim 1, wherein when the biasing means is configured according to the biasing p-channel MOS transistor connected to the reference voltage, the biasing p-channel MOS transistor having source, drain and gate terminals, the drain terminal of the biasing p-channel MOS transistor is connected to the reference voltage.

7. (Original) The voltage-controlled oscillator circuit of claim 6, wherein the gate and drain terminals of the biasing p-channel MOS transistor are connected.

8. (Original) The voltage-controlled oscillator circuit of claim 7, wherein the at least one inductor is configured according to a pair of first and second inductors connected in series.

9. (Original) The voltage-controlled oscillator circuit of claim 8, wherein the source terminal of the biasing p-channel MOS transistor is connected to the inter-connection between the pair of first and second inductors.

10. (Original) The voltage-controlled oscillator circuit of claim 9, wherein the source terminals of the pair of p-channel MOS transistors are connected to the supply voltage

11-18. (Cancelled)

19. (Currently amended) A method for configuring a voltage-controlled oscillator circuit connected to supply and reference voltages for radio frequency operation, the method comprising the steps of:

providing at least one inductor;

connecting at least one varactor in parallel with the at least one inductor;

connecting a pair of p-channel MOS transistors across the at least one varactor, each p-channel transistor having source, drain, and gate terminals, wherein the drain terminal of the first of the pair of p-channel MOS transistors is connected to the gate terminal of the second of the pair of p-channel MOS transistors and the drain terminal of the second of the pair of p-channel MOS transistors ~~being~~ is connected to the gate terminal of the first of the pair of p-channel MOS transistors; and

providing biasing means for providing a biasing current to the voltage-controlled oscillator circuit and for substantially widening the tuning range thereof, the biasing means being configured according to a biasing n-channel MOS transistor connected to the supply voltage and a ~~biasing~~ self-biasing p-channel MOS transistor connected to the reference voltage,

wherein the biasing means is connected to the pair of p-channel MOS transistors and the at least one inductor.

20. (Currently amended) The method as in claim 19, the biasing p-channel MOS transistor having source, drain and gate terminals and the drain terminal of the biasing p-channel MOS transistor is connected to the reference voltage, further comprising the step of connecting the gate and drain terminals of the biasing p-channel MOS transistor.

21. (New) The method as in claim 19, the biasing n-channel MOS transistor having source, drain and gate terminals and the drain terminal of the biasing n-channel MOS transistor is connected to the supply voltage, further comprising the

step of connecting the gate terminal of the biasing n-channel MOS transistor to a biasing voltage.

22. (New) The method as in claim 19, further comprising the step of connecting the source terminal of the biasing n-channel MOS transistor to the source terminals of the pair of p-channel MOS transistors.

23. (New) The method as in claim 19, further comprising the step of configuring the at least one inductor according to a pair of first and second inductors connected in series.

24. (New) The method as in claim 23, further comprising the step of connecting the source terminal of the biasing p-channel MOS transistor to the inter-connection between the pair of first and second inductors.